

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002497**Date Inspected:** 05-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1500**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2200**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** An Qing Xiang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Skin Plates**Summary of Items Observed:**

On this date, Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) Inspector Edward Leach was present to randomly observe and document the welding and Quality Control (QC) functions performed by ZPMC personnel relative to the fabrication of SAS Superstructure project. While on site, the QA Inspector noted the following work.

New Tower Shop (Bay1)

The QA Inspector made a random observation to bay 1, observing ZPMC personnel performing heat straightening procedures at multiple locations on various tower plates. The QA Inspector also observed welding being performed by ZPMC personnel for several tower skin plate panels. During this observation the QA Inspector observed ZPMC qualified welding personnel Yun Chuanjin, welder identification (ID) 0503060 utilizing the submerged arc welding (SAW) process in the flat (1G) position to weld subsequent filler passes for a complete joint penetration (CJP) weld splice for tower skin plate SSD1-SA173A/K-19B. The QA Inspector visually observed ZPMC CWI personnel An Qing Xiang verify electrical welding parameters, travel speed and pre-heat. The QA Inspector also noted welding procedure specifications (WPS) WPS-B-T-2221-B-U3C-S-1 and WPS-B-T-2221-B-U3C-S. The QA Inspector noted the recorded welding parameters that were verified by Mr. Anqing Xiang and observed the readings appeared to be in general compliance with the noted WPS and the contract specifications.

In this same general area the QA Inspector observed ZPMC welding personnel Chang Chuancang, weld ID # 053870, performing Flux Cored Arc Welding (FCAW) in the vertical (3G) position to the requirements of WPS-345-FCAW-3G(3F)-repair to weld several base metal gouges left over from flame cutting on the side edge of skin plate panel P147(S). The welding was nearing completion at the time of observation and the electrical

WELDING INSPECTION REPORT

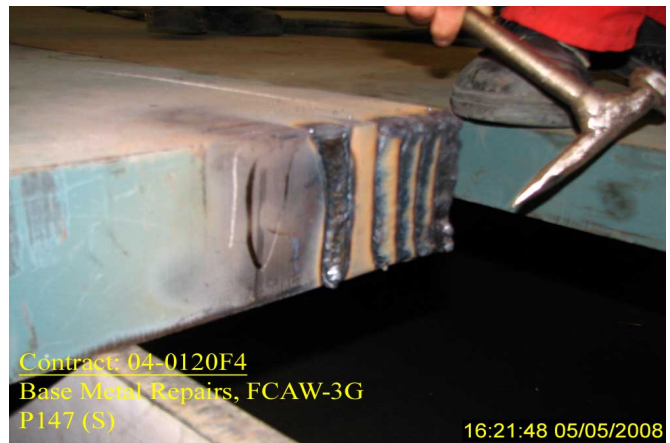
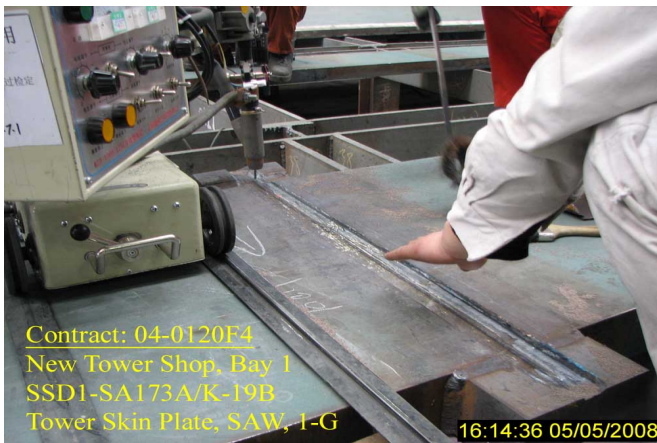
(Continued Page 2 of 2)

welding parameters were recorded by ZPMC CWI personnel An Qing Xiang. The QA Inspector also noted ZPMC personnel using repair procedure T-W R032 for P147 (S) and P-789 (E). The recorded welding parameters appeared to comply with the requirements of the WPS referenced above and the contract specification.

Tower Shop Bay 3

The QA Inspector began performing visual inspections on deck panel DP049-001 after repairs were completed by ZPMC personnel. The QA Inspector mapped out Y coordinates along the length of weld joint 9 where areas of under fill were previously marked up, welded and ground. These areas were recorded onto a Caltrans visual inspection form for later review. The QA Inspector was not able to access the other closed ribs to continue visual inspections as ZPMC personnel were stacking plate on top of the deck panel. This information was conveyed on a daily turn over log.

The following pictures below detail the progress of welding in the new tower shop.



Summary of Conversations:

No relevant conversations this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Leach,Ed	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
